Hydrophobins and Biodeterioration of Paint by Fungi

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Paint coatings are susceptible to biodeterioration by fungi often affecting the appearance and physical/chemical properties of the paint.
Investigations into adhesion of fungal spores to paint films is therefore of fundamental importance.
Hydrophobins are small, cystein rich, hydrophobic proteins with the ability to assemble into an amphipathic protein film when confronted with a hydrophilic-hydrophobic interface, such as between water and air [1]. This is of special importance for the emergent growth of aerial mycelium and differentiation.
Hydrophobins play an important role in the attachment of conidia to plant surfaces prior to infection, and they enhance adhesion of *Schizophyllum commune* mycelia to solid hydrophobic surfaces.

We report here on a simplified extraction procedure for hydrophobins from conidia and mycelia in order to investigate the possible role of hydrophobins on the adhesion to paint films of a wide range of fungi.

[1] Wessels, J.G.H., *Advances in Microbial Physiology*, 38, 1-45, 1997.

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